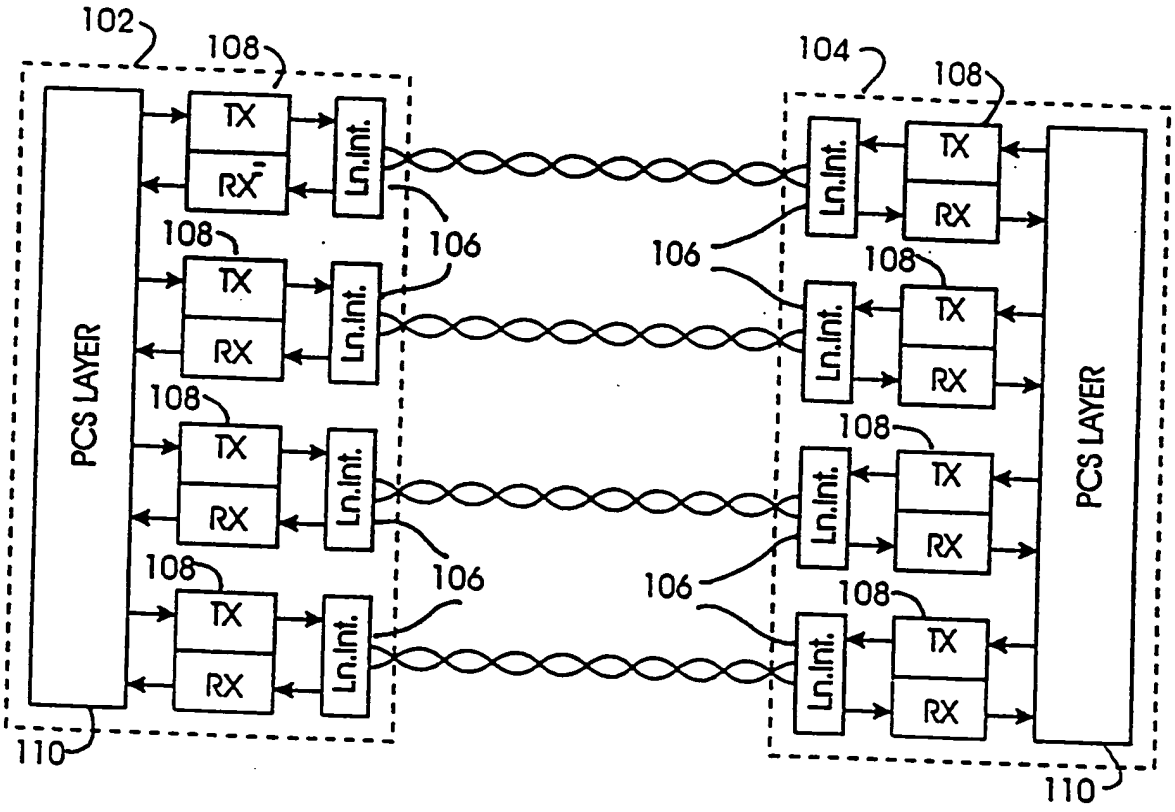

FIG. 1

TITLE: A MULTI-PAIR GIGABIT TRANSCEIVER
INVENTOR: AGAZZI
APPLICATION NO.: UNASSIGNED,
CONF. NO. ; DOCKET NO. 13469US03
ATTORNEY: JAW, PHONE: 312-775-8000

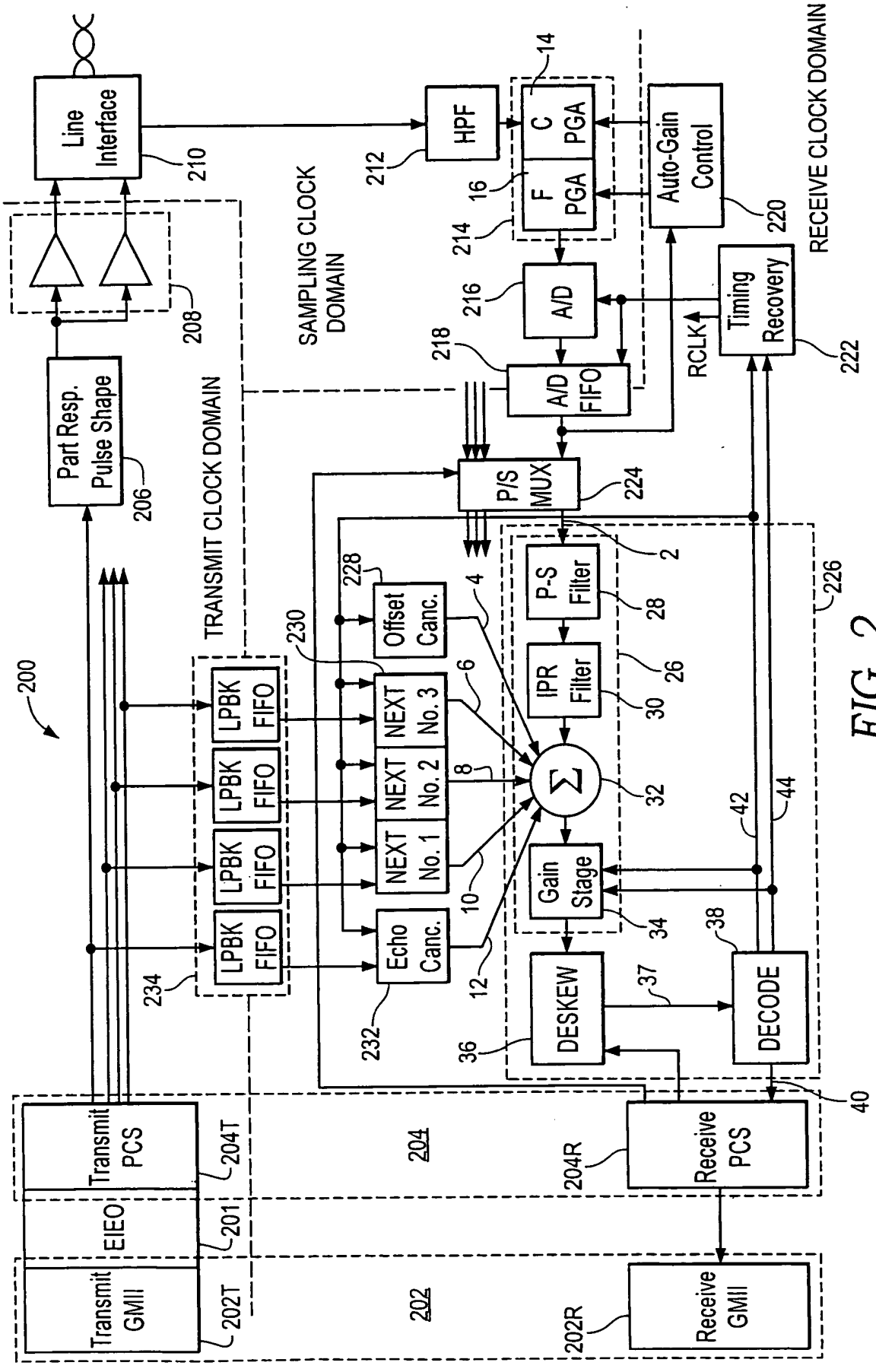

FIG. 2

TITLE: A MULTI-PAIR GIGABIT TRANSCEIVER
INVENTOR: AGAZZI
APPLICATION NO.: UNASSIGNED,
CONF. NO. ; DOCKET NO. 13469US03
ATTORNEY: JAW, PHONE: 312-775-8000

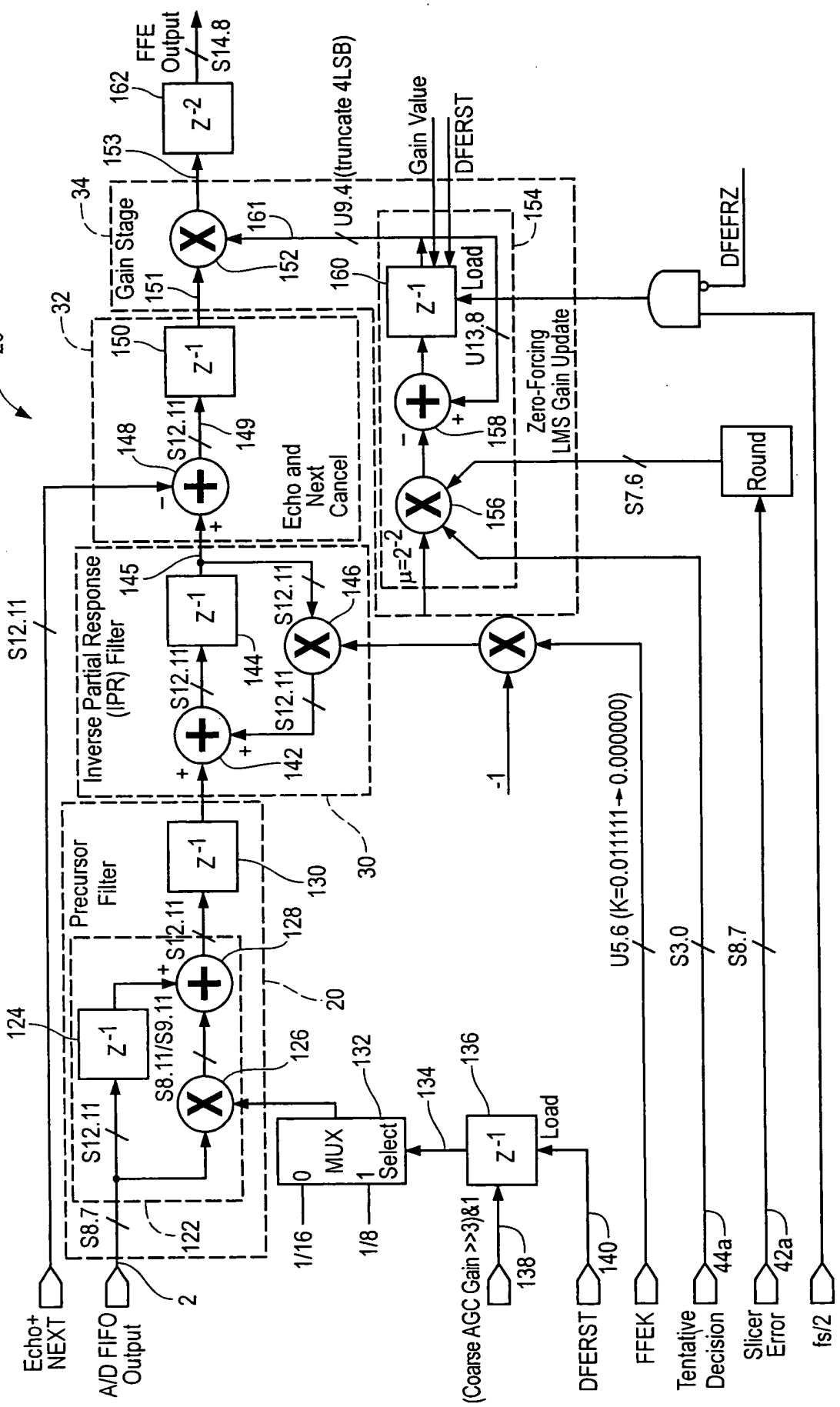

FIG. 2A

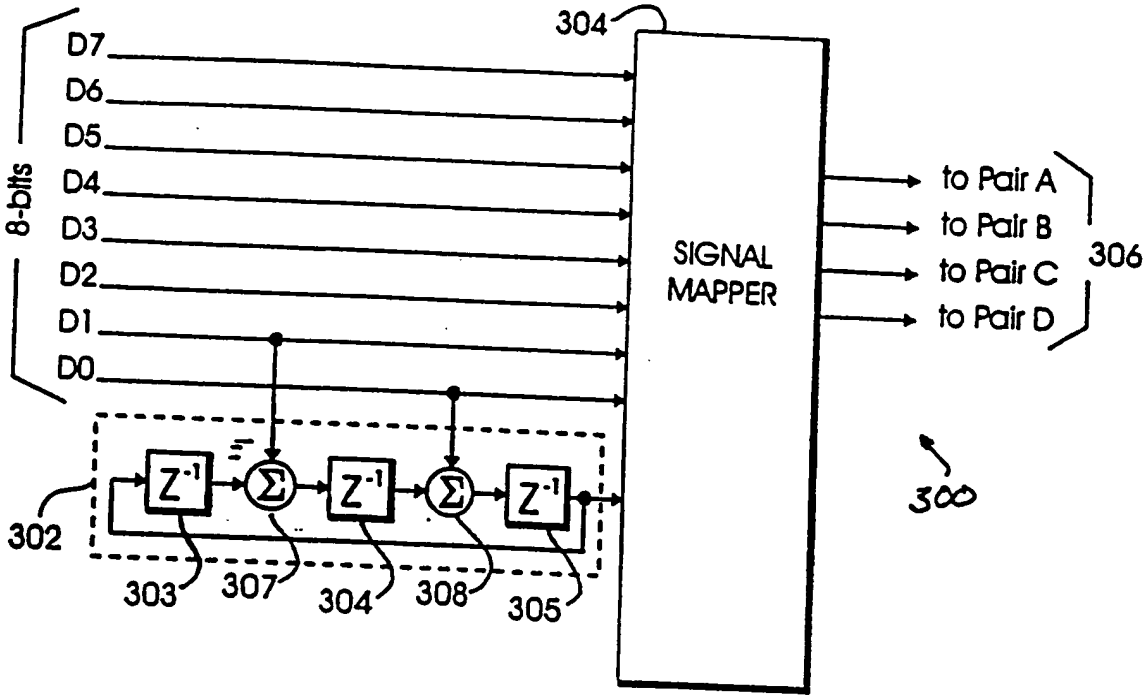

FIG. 3

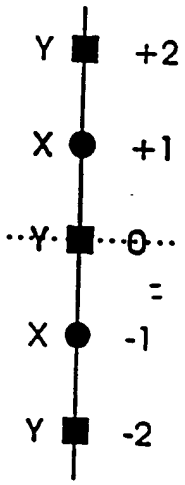

FIG. 4A

	Pair ABCD		Pair ABCD
s0	XXXX	U	YYYY
s1	XXXY	U	YYYX
s2	XXYY	U	YYXX
s3	XXYX	U	YYXY
s4	XYYX	U	YXXY
s5	XYYY	U	YXXX
s6	XYXY	U	YXYX
s7	XYXX	U	YXYY

FIG. 4B

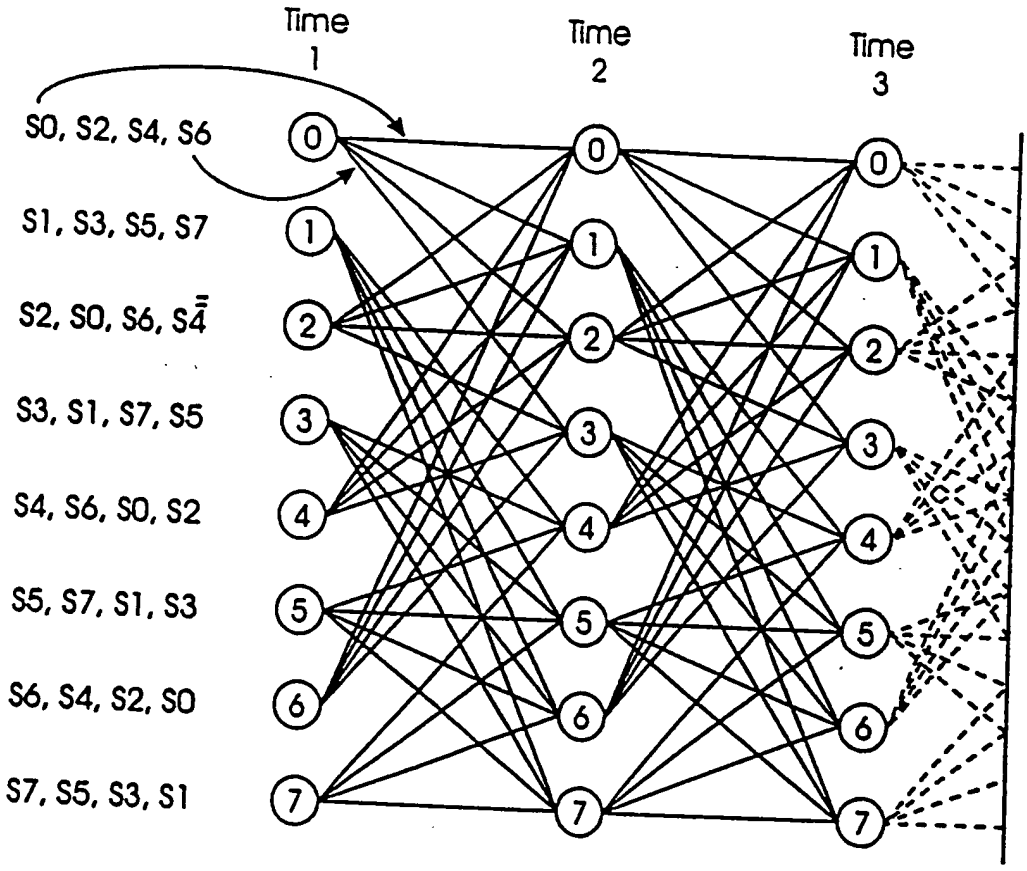
Time 1
Time 2
Time 3
S0, S2, S4, S6
S1, S3, S5, S7
S2, S0, S6, S4
S3, S1, S7, S5
S4, S6, S0, S2
S5, S7, S1, S3
S6, S4, S2, S0
S7, S5, S3, S1
0
1
2
3
4
5
6
7

FIG. 5

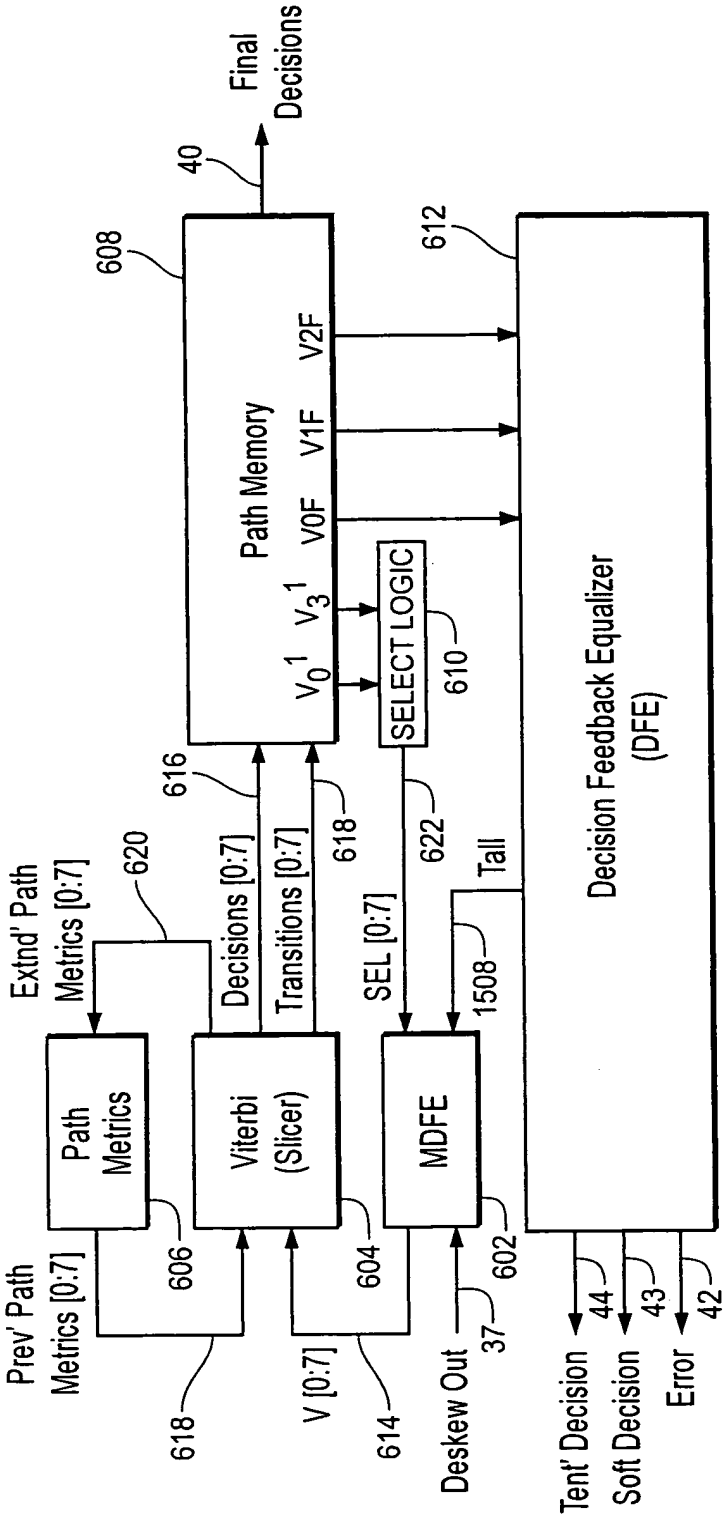
Final Decisions
40
608
612
Path Memory
V2F
V1F
V0F
V_3^1
V_0^1
SELECT LOGIC
610
Decision Feedback Equalizer (DFE)
616
618
622
620
Extnd' Path Metrics [0:7]
Decisions [0:7]
Transitions [0:7]
SEL [0:7]
Tall
1508
Path Metrics
Viterbi (Slicer)
MDFE
Prev' Path Metrics [0:7]
606
604
602
618
V [0:7]
614
Deskew Out
37
Tent' Decision
Soft Decision
Error
44
43
42

FIG. 6

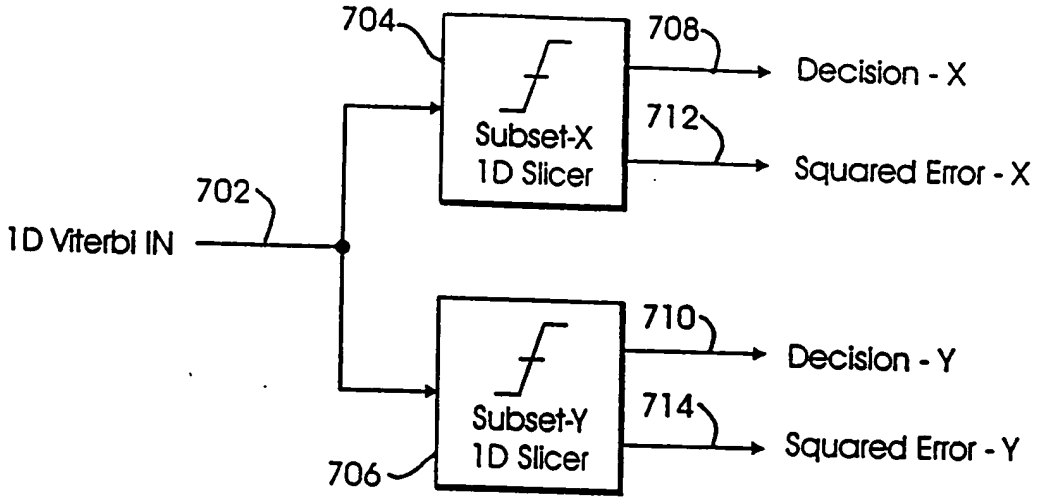
704
708
Decision - X
Subset-X
1D Slicer
712
Squared Error - X
702
1D Viterbi IN
710
Decision - Y
Subset-Y
1D Slicer
714
Squared Error - Y
706

FIG. 7

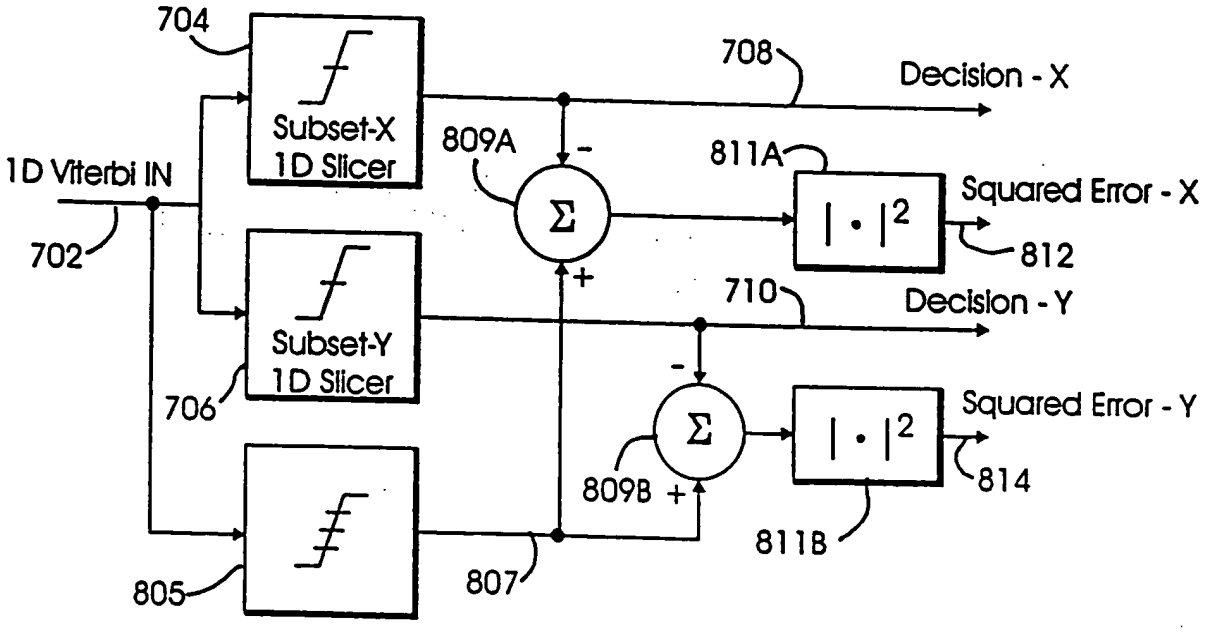
704
708
Decision - X
Subset-X
1D Slicer
809A
-
811A
1D Viterbi IN
Σ
|·|²
Squared Error - X
702
812
+
710
Decision - Y
Subset-Y
1D Slicer
-
706
Σ
|·|²
Squared Error - Y
809B +
814
811B
805
807

FIG. 8

ITLE: A MULTI-PAIR GIGABIT TRANSCEIVER
NVENTOR: AGAZZI
PPLICATION NO.: UNASSIGNED,
ONF. NO. ; DOCKET NO. 13469US03
TTORNEY: JAW, PHONE: 312-775-8000

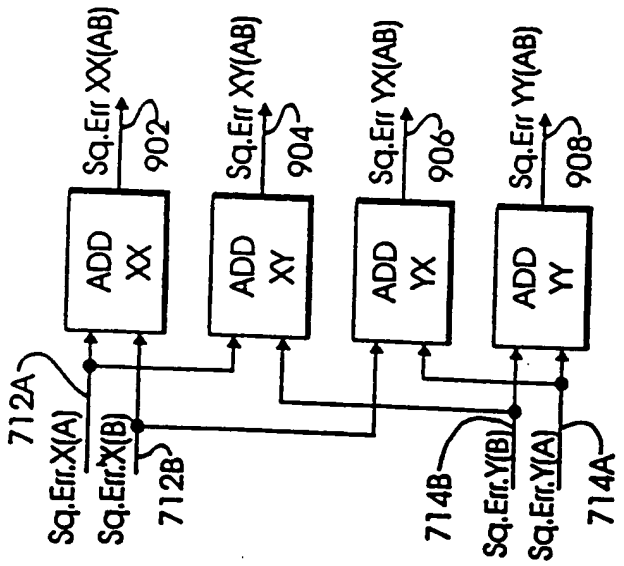

FIG. 9

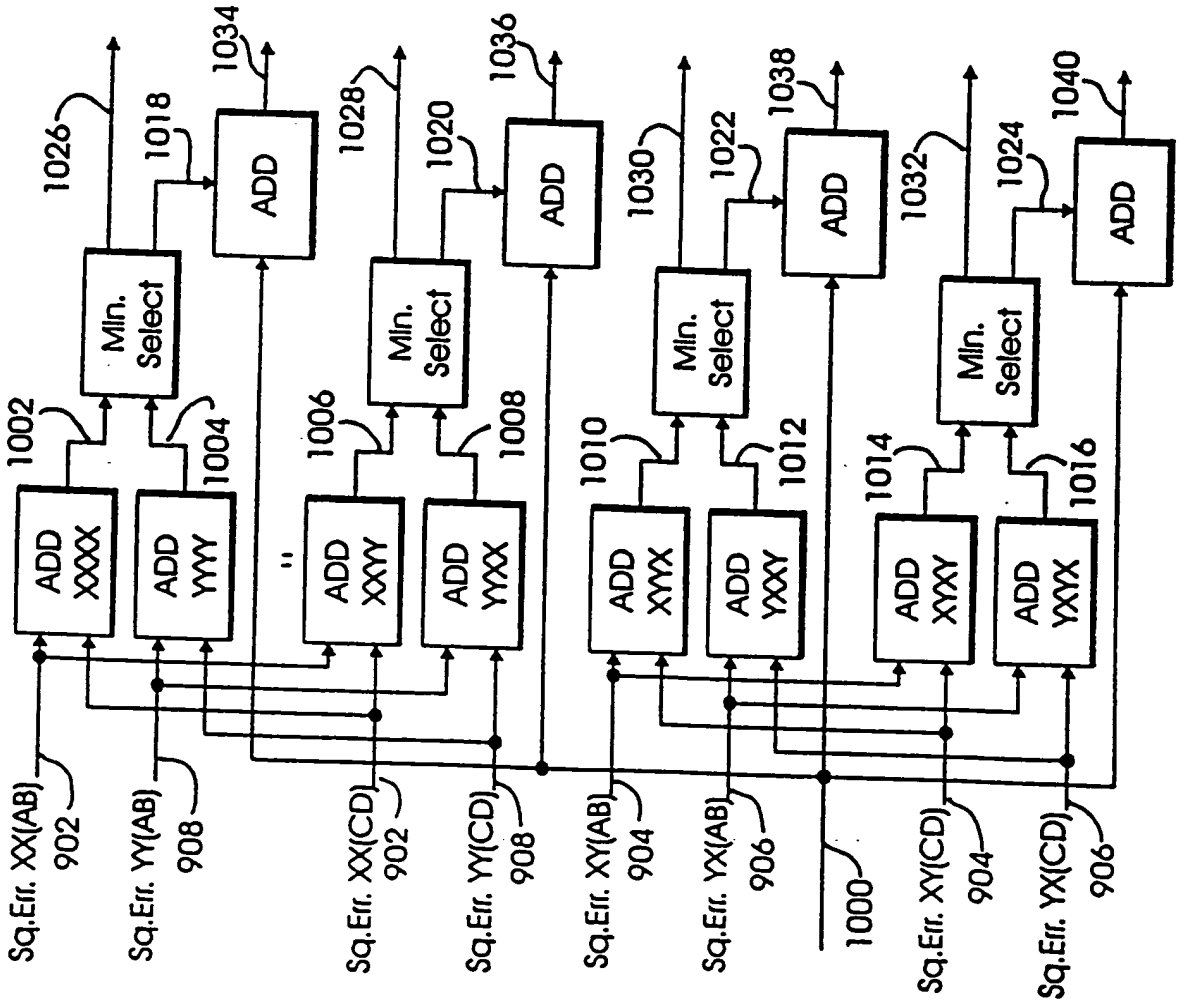

FIG. 10

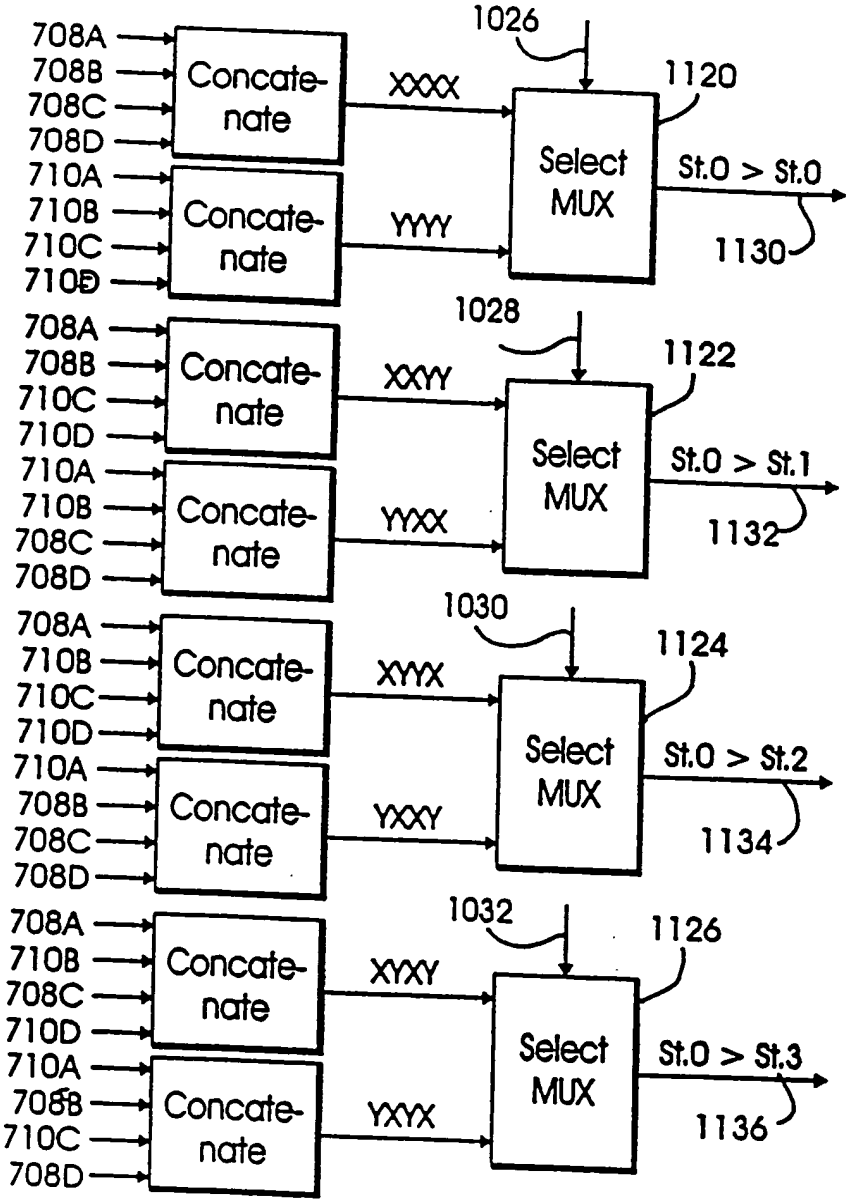
708A
708B
708C
708D
710A
710B
710C
710D
Concate-nate
XXXX
YYYY
1026
Select MUX
1120
St.0 > St.0
1130
1028
XXYY
YYXX
1122
St.0 > St.1
1132
1030
XYYX
YXXY
1124
St.0 > St.2
1134
1032
XYXY
YXYX
1126
St.0 > St.3
1136

FIG. 11

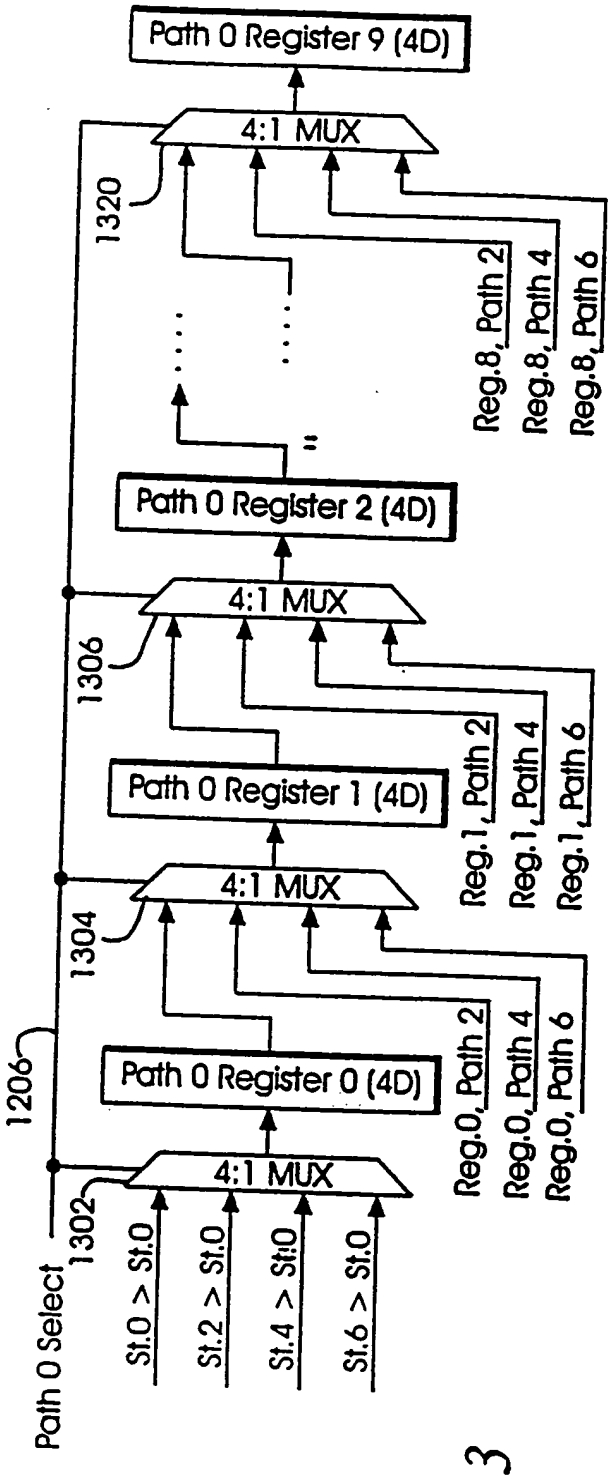
Path 0 Register 9 (4D)
4:1 MUX
1320
Reg.8, Path 2
Reg.8, Path 4
Reg.8, Path 6
Path 0 Register 2 (4D)
4:1 MUX
1306
Reg.1, Path 2
Reg.1, Path 4
Reg.1, Path 6
Path 0 Register 1 (4D)
4:1 MUX
1304
Reg.0, Path 2
Reg.0, Path 4
Reg.0, Path 6
Path 0 Register 0 (4D)
4:1 MUX
1206
1302
Path 0 Select
St.0 > St.0
St.2 > St.0
St.4 > St.0
St.6 > St.0

FIG. 13

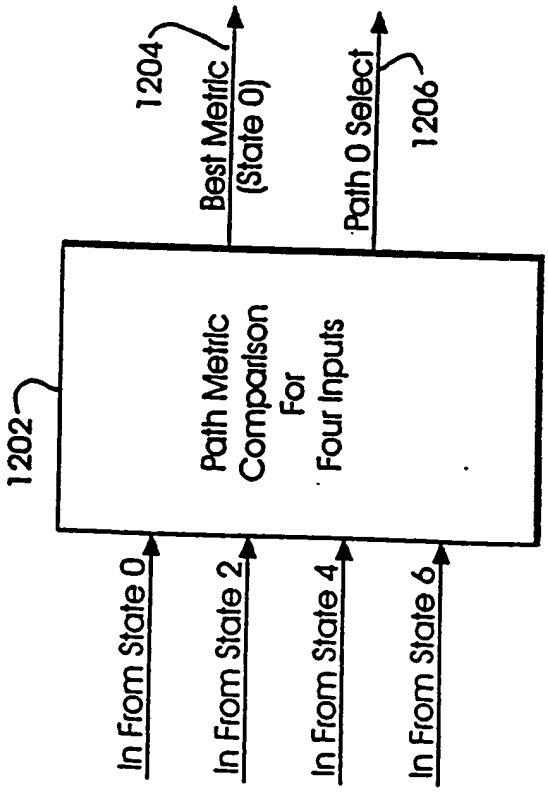
1204
Best Metric (State 0)
Path 0 Select
1206
1202
Path Metric Comparison For Four Inputs
In From State 0
In From State 2
In From State 4
In From State 6

FIG. 12

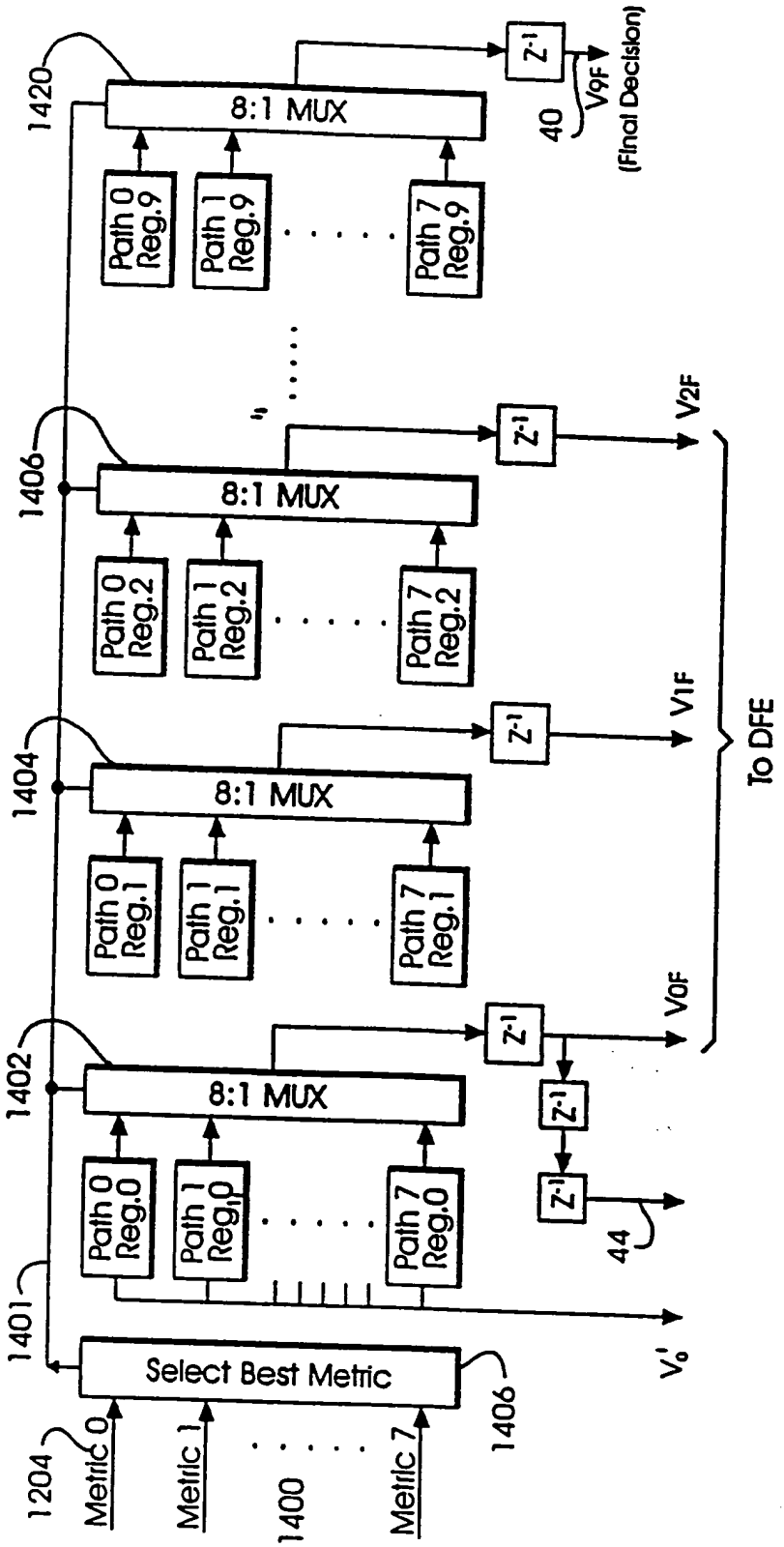
1420
8:1 MUX
Path 0 Reg.9
Path 1 Reg.9
Path 7 Reg.9
Z-1
40
V9F
(Final Decision)
1406
8:1 MUX
Path 0 Reg.2
Path 1 Reg.2
Path 7 Reg.2
Z-1
V2F
1404
8:1 MUX
Path 0 Reg.1
Path 1 Reg.1
Path 7 Reg.1
Z-1
V1F
1402
8:1 MUX
Path 0 Reg.0
Path 1 Reg.0
Path 7 Reg.0
Z-1
Z-1
Z-1
V0F
44
To DFE
1401
Select Best Metric
1406
V0'
1204
Metric 0
Metric 1
Metric 7
1400

FIG. 14

TITLE: A MULTI-PAIR GIGABIT TRANSCEIVER
INVENTOR: AGAZZI
APPLICATION NO.: UNASSIGNED,
CONF. NO. ; DOCKET NO. 13469US03
ATTORNEY: JAW, PHONE: 312-775-8000

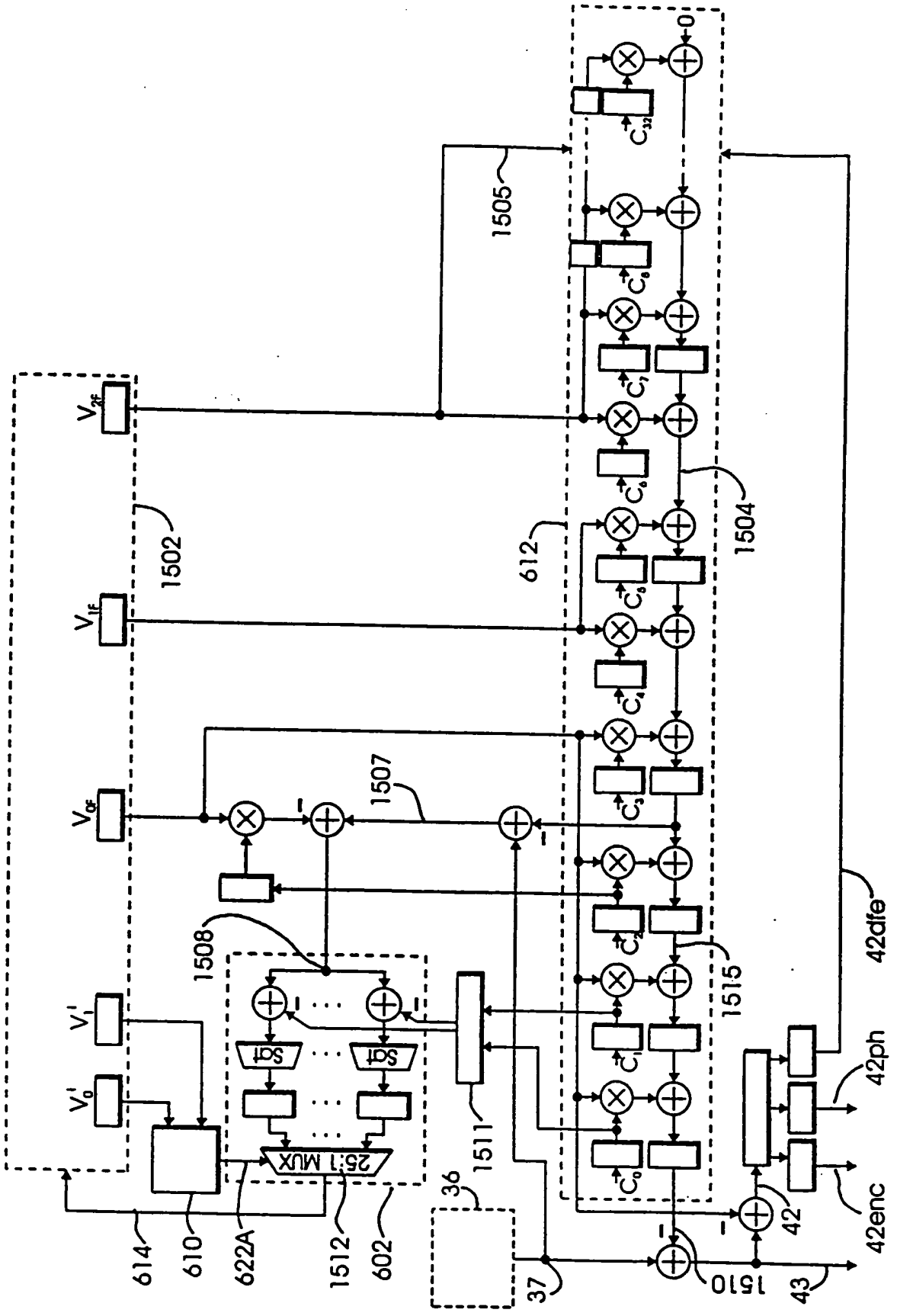

FIG. 15

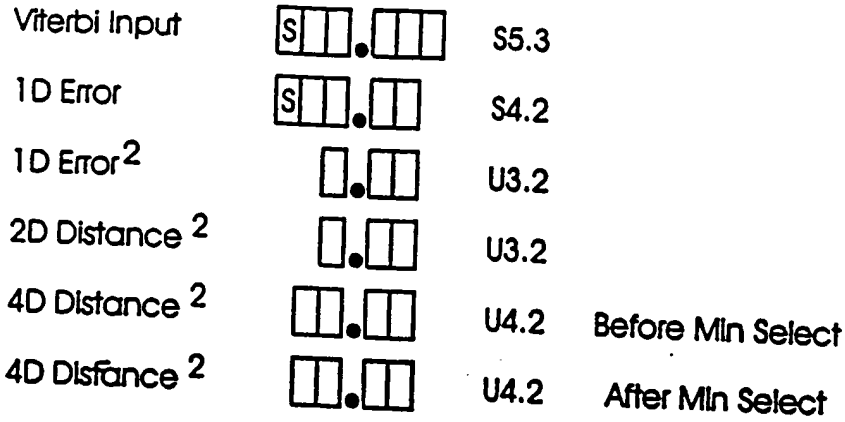

FIG. 16

Error Values	1D Distance² Values
00.00	0.00
00.01 / 11.11	0.00
00.10 / 11.10	0.01
00.11 / 11.01	0.10
01.00 / 11.00	1.00

FIG. 17

FIG. 18A

VITERBIINPUT	DECISION X	ERROR X	ROUNDEDERROR X	ERROR X**2	DECISION Y	ERROR Y	ROUNDEDERROR Y	ERROR Y**2
01.111	001	00.111	01.00	1.00	010	11.111	00.00	0.00
01.110	001	00.110	00.11	0.10	010	11.110	11.11	0.00
01.101	001	00.101	00.11	0.10	010	11.101	11.11	0.00
01.100	001	00.100	00.10	0.01	010	11.100	11.10	0.01
01.011	001	00.011	00.10	0.01	010	11.011	11.10	0.01
01.010	001	00.010	00.01	0.00	010	11.010	11.01	0.10
01.001	001	00.001	00.01	0.00	010	11.001	11.01	0.10
01.000	001	00.000	00.00	0.00	010	11.000	11.00	1.00
00.111	001	11.111	00.00	0.00	000	00.111	01.00	1.00
00.110	001	11.110	11.11	0.00	000	00.110	00.11	0.10
00.101	001	11.101	11.11	0.00	000	00.101	00.11	0.10
00.100	001	11.100	11.10	0.01	000	00.100	00.10	0.01
00.011	001	11.011	11.10	0.01	000	00.011	00.10	0.01
00.010	001	11.010	11.01	0.10	000	00.010	00.01	0.00
00.001	001	11.001	11.01	0.10	000	00.001	00.01	0.00
00.000	001	11.000	11.00	1.00	000	00.000	00.00	0.00

FIG. 18B

VITERBIINPUT	DECISION X	ERROR X	ROUNDEDERROR X	ERROR X**2	DECISION Y	ERROR Y	ROUNDEDERROR Y	ERROR Y**2
11.111	111	00.111	01.00	1.00	000	11.111	00.00	0.00
11.110	111	00.110	00.11	0.10	000	11.110	11.11	0.00
11.101	111	00.101	00.11	0.10	000	11.101	11.11	0.00
11.100	111	00.100	00.10	0.01	000	11.100	11.10	0.01
11.011	111	00.011	00.10	0.01	000	11.011	11.10	0.01
11.010	111	00.010	00.01	0.00	000	11.010	11.01	0.10
11.001	111	00.001	00.01	0.00	000	11.001	11.01	0.10
11.000	111	00.000	00.00	0.00	000	11.000	11.00	1.00
10.111	111	11.111	00.00	0.00	110	00.111	01.00	1.00
10.110	111	11.110	11.11	0.00	110	00.110	00.11	0.10
10.101	111	11.101	11.11	0.00	110	00.101	00.11	0.10
10.100	111	11.100	11.10	0.01	110	00.100	00.10	0.01
10.011	111	11.011	11.10	0.01	110	00.011	00.10	0.01
10.010	111	11.010	11.01	0.10	110	00.010	00.01	0.00
10.001	111	11.001	11.01	0.10	110	00.001	00.01	0.00
10.000	111	11.000	11.00	1.00	110	00.000	00.00	0.00